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L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS

RN 65979-42-2 REGISTRY

CN D-Aminoacylase (9CI) (CA INDEX NAME)

OTHER NAMES:

CN D-Amino acid acylase

CN N-Acyl-D-amino acid amidohydrolase

MF Unspecified

CI MAN

LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT,
TOXCENTER, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

63 REFERENCES IN FILE CA (1962 TO DATE)

63 REFERENCES IN FILE CAPLUS (1962 TO DATE)

WEST Search History

DATE: Friday, March 21, 2003

Set Name Query
side by side

Hit Count Set Name
result set

DB=USPT,PGPB; PLUR=YES; OP=ADJ

L11	L10 and l7	9	L11
L10	L9 and (bacter\$7 Or eubacter\$7)	13	L10
L9	L8 and (d amino acid)	15	L9
L8	d aminoacylase or d amino acid acylase or n acyl d amino acid amidohydrolase	16	L8
L7	L6 or l5 or l4 or l3 or l2 or l1	12421	L7
L6	((((530/350)!.CCLS.))	9300	L6
L5	((((435/227)!.CCLS.))	212	L5
L4	((((435/195)!.CCLS.))	483	L4
L3	((((435/183)!.CCLS.))	2580	L3
L2	((((435/106)!.CCLS.))	362	L2
L1	((435/41)!.CCLS.)	566	L1

END OF SEARCH HISTORY

WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 9 of 9 returned.**☐ 1. Document ID: US 20020102662 A1

L11: Entry 1 of 9

File: PGPB

Aug 1, 2002

PGPUB-DOCUMENT-NUMBER: 20020102662

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020102662 A1

TITLE: Methods for racemizing N-acylamino acids and producing optically active amino acids

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 2. Document ID: US 20020090684 A1

L11: Entry 2 of 9

File: PGPB

Jul 11, 2002

PGPUB-DOCUMENT-NUMBER: 20020090684

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020090684 A1

TITLE: Process for the production of amino acids

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 3. Document ID: US 6514742 B1

L11: Entry 3 of 9

File: USPT

Feb 4, 2003

US-PAT-NO: 6514742

DOCUMENT-IDENTIFIER: US 6514742 B1

TITLE: D-aminoacylases, method for producing the same, and method for producing D-amino acids using the same

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 4. Document ID: US 6030823 A

L11: Entry 4 of 9

File: USPT

Feb 29, 2000

US-PAT-NO: 6030823

DOCUMENT-IDENTIFIER: US 6030823 A

TITLE: D-aminoacylase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 5. Document ID: US 6015698 A

L11: Entry 5 of 9

File: USPT

Jan 18, 2000

US-PAT-NO: 6015698

DOCUMENT-IDENTIFIER: US 6015698 A

TITLE: Method of producing D-amino acid and method of producing amine

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 6. Document ID: US 5916774 A

L11: Entry 6 of 9

File: USPT

Jun 29, 1999

US-PAT-NO: 5916774

DOCUMENT-IDENTIFIER: US 5916774 A

TITLE: D-aminoacylase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 7. Document ID: US 5587303 A

L11: Entry 7 of 9

File: USPT

Dec 24, 1996

US-PAT-NO: 5587303

DOCUMENT-IDENTIFIER: US 5587303 A

TITLE: Production process of L-amino acids with bacteria

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 8. Document ID: US 5206162 A

L11: Entry 8 of 9

File: USPT

Apr 27, 1993

US-PAT-NO: 5206162

DOCUMENT-IDENTIFIER: US 5206162 A

TITLE: Process for making D-aminoacylase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Image									

KVMC	Draw Desc
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☐ 9. Document ID: US 5194383 A

L11: Entry 9 of 9

File: USPT

Mar 16, 1993

US-PAT-NO: 5194383

DOCUMENT-IDENTIFIER: US 5194383 A

TITLE: Process for making L-aminoacylase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Image									

KVMC	Draw Desc
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Terms	Documents
L10 and 17	9

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(FILE 'HOME' ENTERED AT 13:22:16 ON 21 MAR 2003)

FILE 'REGISTRY' ENTERED AT 13:22:48 ON 21 MAR 2003

L1 1 S 65979-42-2/RN

FILE 'HCAPLUS' ENTERED AT 13:23:42 ON 21 MAR 2003

FILE 'CAOLD, CAPLUS, CASREACT, CROPU, DGENE, DPCI, ENCOMPPAT, ENCOMPPAT2, EUROPATFULL, IFIPAT, INPADOC, JAPIO, PAPERCHEM2, PATDD, PATDPA, PATOSDE, PATOSEP, PATOSWO, PCTFULL, PIRA, RAPRA, SYNTHLINE, TULSA, TULSA2, USPATFULL, USPAT2, WPIDS' ENTERED AT 13:23:45 ON 21 MAR 2003

FILE 'REGISTRY' ENTERED AT 13:23:50 ON 21 MAR 2003

SET SMARTSELECT ON

L2 SEL L1 1- CHEM : 4 TERMS

SET SMARTSELECT OFF

FILE 'CAOLD, CAPLUS, CASREACT, CROPU, DGENE, DPCI, ENCOMPPAT, ENCOMPPAT2, EUROPATFULL, IFIPAT, INPADOC, JAPIO, PAPERCHEM2, PATDD, PATDPA, PATOSDE, PATOSEP, PATOSWO, PCTFULL, PIRA, RAPRA, SYNTHLINE, TULSA, TULSA2, USPATFULL, USPAT2, WPIDS' ENTERED AT 13:23:51 ON 21 MAR 2003

L3 236 S L2

L4 56 S L3 (L) (BACTER? OR EUBACTER?)

L5 45 S L4 (L) (D AMINO ACID)

L6 38 DUP REM L5 (7 DUPLICATES REMOVED)

L7 15 S L6 AND PY<2000

=> d ibib ab 1-15

L7 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:318070 CAPLUS
DOCUMENT NUMBER: 120:318070
TITLE: N-acyl-D-amino-acid amidohydrolase
AUTHOR(S): Moriguchi, Mitsuaki
CORPORATE SOURCE: Fac. Eng., Oita Univ., Oita, 870-11, Japan
SOURCE: Kagaku to Seibutsu (1994), 32(4), 217-9
CODEN: KASEAA; ISSN: 0453-073X
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese

AB A review with 15 refs. on N-acyl-D-amino acid amidohydrolase of Pseudomonas, Streptomyces, and Alcaligenes, its induction enhancement by N-acetyl amino acids, substrate specificity of the enzyme, and homol. of the N-terminal amino acid sequences among the strains.

L7 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1980:548027 CAPLUS
DOCUMENT NUMBER: 93:148027
TITLE: Deacetylation of PS-5, a new .beta.-lactam compound.
I. Microbial deacetylation of PS-5
AUTHOR(S): Fukagawa, Yasuo; Kubo, Katsuro; Ishikura, Tomoyuki;
Kouno, Kageaki
CORPORATE SOURCE: Cent. Res. Lab., Sanraku-Ocean Co., Ltd., Fujisawa,
Japan
SOURCE: Journal of Antibiotics (1980), 33(6), 543-9
CODEN: JANTAJ; ISSN: 0021-8820
DOCUMENT TYPE: Journal
LANGUAGE: English

AB PS-5 (I) [67007-79-8] deacetylated to NS-5 (II) [74806-75-0] by L-amino acid acylase [9012-37-7] from porcine kidney and D-amino acid acylase [65979-42-2] from Streptomyces olivaceus, but not by L-amino acid acylase from Aspergillus sp. Using PS-5, N-chloroacetyl-L-phenylalanine, and N-chloroacetyl-D-valine as substrates, acylase producers were screened among facultative MeOH-assimilating bacteria. Most of the microbes tested were active and could be classified into 2 groups of L-acylase producers and L- and D-acylase producers. Pseudomonas Sp. 1158, which deacetylated the 3 substrates, was chosen for further study. Cells of the bacterium entrapped in polyacrylamide gel and its acylase activities immobilized on DEAE-Sephadex were useful for conversion of PS-5 to NS-5.

L7 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1980:512323 CAPLUS
DOCUMENT NUMBER: 93:112323
TITLE: D-Aminoacylase
PATENT ASSIGNEE(S): Sanraku-Ocean Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55042534	A2	19800325	JP 1978-115323	19780919 <--
JP 60031477	B4	19850722		

PRIORITY APPLN. INFO.: JP 1978-115323 19780919

AB A D-aminoacylase (I) [65979-42-2] was produced by culturing a facultatively MeOH-assimilating bacterium at 10-40.degree. and at pH 4.0-9.0. I was reactive to N-acyl D-amino acids but not to N-acyl glucosamines or N-acyl ethanolamines, optimally reacting at .apprx.80.degree. and at pH 7.4. I was stable at <80.degree. and at pH 6-7 and had a mol. wt. of 100,000, an isoelec. point of 4.95, and an elemental anal. of C 54.33, H 7.19, and N 16.37. I was inhibited by Hg2+, Cu2+, and p-chloromercuribenzoate. Thus,

Pseudomonas species 1158 was cultured with shaking at 28.degree. for 4 days on 100 mL medium (pH 7.0) contg. glucose 2, Pharmamedia 0.8, and corn steep liquor 0.5%. The culture cells were suspended in 500 mL of 0.01M phosphate buffer (pH 7.4) and sonicated to yield an ext. The ext. (830 mL) was mixed with 3 g streptomycin H2SO4 and centrifuged at 10,000 rpm for 30 min at 0.degree. to yield 800 mL supernatant. I in the supernatant was pptd. with addn. of (NH4)2SO4 and purified by column chromatog. on DEAE-Sephacel, Sephadex G-100, and G-200.

L7 ANSWER 4 OF 15 EUROPATFULL COPYRIGHT 2003 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 950706 EUROPATFULL EW 199942 FS OS
TITLE: **D-aminoacylase.**
D-Aminoacylase.
D-aminoacylase.
INVENTOR(S): Tokuyama, Shinji, Goudoushukusha Oshika Jutaku 5-16,
6-20, Oshika, 3-chome, Shizuoka-shi, Shizuoka 422-8021,
JP
PATENT ASSIGNEE(S): DAICEL CHEMICAL INDUSTRIES, Ltd., 1, Teppo-cho,
Sakai-shi, Osaka 590-0905, JP
PATENT ASSIGNEE NO: 283799
AGENT: VOSSIUS & PARTNER, Siebertstrasse 4, 81675 Muenchen, DE
AGENT NUMBER: 100314
OTHER SOURCE: ESP1999076 EP 0950706 A2 991020
SOURCE: Wila-EPZ-1999-H42-T1a
DOCUMENT TYPE: Patent
LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES: R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R
GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R
SE; R AL; R LT; R LV; R MK; R RO; R SI
PATENT INFO.PUB.TYPE: EPA2 EUROPAEISCHE PATENTANMELDUNG
PATENT INFORMATION:
PATENT NO KIND DATE

EP 950706 A2 19991020
'OFFENLEGUNGS' DATE: 19991020
APPLICATION INFO.: EP 1999-104069 19990317
PRIORITY APPLN. INFO.: JP 1998-89246 19980317
JP 1999-35620 19990215

GRANTED PATENT - ERTEILTES PATENT - BREVET DELIVRE

ACCESSION NUMBER: 950706 EUROPATFULL EW 200310 FS PS
TITLE: **D-aminoacylase** from Sebekia
benihana.
D-Aminoacylase aus Sebekia benihana.
D-aminoacylase de Sebekia benihana.
INVENTOR(S): Tokuyama, Shinji, Goudoushukusha Oshika Jutaku 5-16,
6-20, Oshika, 3-chome, Shizuoka-shi, Shizuoka 422-8021,
JP
PATENT ASSIGNEE(S): DAICEL CHEMICAL INDUSTRIES, Ltd., 1, Teppo-cho,
Sakai-shi, Osaka 590-0905, JP
PATENT ASSIGNEE NO: 283799
AGENT: VOSSIUS & PARTNER, Siebertstrasse 4, 81675 Muenchen, DE
AGENT NUMBER: 100314
OTHER SOURCE: MEPB2003010 EP 0950706 B1 0020
SOURCE: Wila-EPS-2003-H10-T1
DOCUMENT TYPE: Patent
LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES: R DE; R FR; R GB
PATENT INFO.PUB.TYPE: EPB1 EUROPAEISCHE PATENTSCHRIFT
PATENT INFORMATION:
PATENT NO KIND DATE

EP 950706 B1 20030305
'OFFENLEGUNGS' DATE: 19991020
APPLICATION INFO.: EP 1999-104069 19990317

PRIORITY APPLN. INFO.: JP 1998-89246 19980317
JP 1999-35620 19990215
REFERENCE PAT. INFO.: US 5206162 A
REF. NON-PATENT-LIT.: DATABASE WPI Section Ch, Week 198907 Derwent
Publications Ltd., London, GB; Class B04, AN 1989-049889
XP002118788 & JP01005488 A (DAICEL CHEM IND LTD), 10
January 1989 (1989-01-10) MORIGUCHI ET AL.: 'Production,
purification and characterization of D-aminoacylase from
Alcaligenes xylosoxydans subsp. xylosoxydans A-6'
BIOSCIENCE BIOTECHNOLOGY BIOCHEMISTRY vol. 57, no. 7,
1993, TOKYO, JAPAN, pages 1149 - 1152

ABEN A novel **D-aminoacylase** was derived from a
microorganism belonging to the genus Sebekia. This enzyme is useful for
producing **D-amino acids** from
N-acetyl-DL-amino acids on an industrial scale.

L7 ANSWER 5 OF 15 EUROPATFULL COPYRIGHT 2003 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 896057 EUROPATFULL EW 199906 FS OS
TITLE: **D-aminoacylase.**
D-Aminoacylase.
D-aminoacylase.
INVENTOR(S): TOKUYAMA, Shinji, Goudoushukuscha Oshika Jutaka 5-16,
6-20, Oshika 3, Shizuoka-shi, Shizuoka 422-8021, JP
PATENT ASSIGNEE(S): DAICEL CHEMICAL INDUSTRIES, Ltd., 1, Teppo-cho,
Sakai-shi, Osaka 590-0905, JP
PATENT ASSIGNEE NO: 283799
AGENT: VOSSIUS & PARTNER, Siebertstrasse 4, 81675 Muenchen, DE
AGENT NUMBER: 100314
OTHER SOURCE: ESP1999011 EP 0896057 A2 990210
SOURCE: Wila-EPZ-1999-H06-T1a
DOCUMENT TYPE: Patent
LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES: R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R
GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
PATENT INFO.PUB.TYPE: EPA2 EUROPAEISCHE PATENTANMELDUNG
PATENT INFORMATION:

PATENT NO	KIND DATE
EP 896057	A2 19990210
	19990210
EP 1998-114122	19980728
JP 1997-206288	19970731
JP 1998-141932	19980522

'OFFENLEGUNGS' DATE: 19990210
APPLICATION INFO.: EP 1998-114122 19980728
PRIORITY APPLN. INFO.: JP 1997-206288 19970731
JP 1998-141932 19980522
ABEN This invention provides a novel **D-aminoacylase** and a
method for producing said enzyme, and also a method for producing
D-amino acids using said aminoacylase. The
D-aminoacylase of the invention having novel
properties can be derived from microorganisms belonging to the genus
Amycolatopsis. The use of the enzyme enables industrial production of
D-amino acids.

L7 ANSWER 6 OF 15 EUROPATFULL COPYRIGHT 2003 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 859060 EUROPATFULL EW 199834 FS OS
TITLE: Method of producing **D-amino**
acid and amine.
Verfahren zur Herstellung einer D-Aminosaeure und eines
Amins.
Procède de preparation d'un acide amine et d'une amine.
INVENTOR(S): Nikaido, Teruyuki, 2-13-12-508, Hanabatake,
Tsukuba-shi, Ibaraki 300-3261, JP
PATENT ASSIGNEE(S): DAICEL CHEMICAL INDUSTRIES, Ltd., 1, Teppo-cho,

Sakai-shi, Osaka 590-0905, JP
 PATENT ASSIGNEE NO: 283799
 AGENT: VOSSIUS & PARTNER, Siebertstrasse 4, 81675 Muenchen, DE
 AGENT NUMBER: 100314
 OTHER SOURCE: ESP1998056 EP 0859060 A2 980819
 SOURCE: Wila-EPZ-1998-H34-T1a
 DOCUMENT TYPE: Patent
 LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
 DESIGNATED STATES: R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
 PATENT INFO.PUB.TYPE: EPA2 EUROPÄISCHE PATENTANMELDUNG
 PATENT INFORMATION:

PATENT NO	KIND DATE
EP 859060	A2 19980819
	19980819
EP 1998-102525	19980213
JP 1997-30981	19970214
JP 1998-30302	19980213

'OFFENLEGUNGS' DATE: 19980819
 APPLICATION INFO.: EP 1998-102525 19980213
 PRIORITY APPLN. INFO.: JP 1997-30981 19970214
 ABEN D-amino acid with high optical purity
 represented by formula (1-A) and/or formula (1-B), <image> wherein R represents H or OH, <image> wherein R.sub1., R.sub2. each represents H or OH, and amine represented by formula (2-A) and/or formula (2-B) <image> wherein R represents H or OH, <image> wherein R.sub1. and R.sub2. each represents H or OH,
 can be produced economically in an industrial scale by contacting a mixture of enantiomers of amino acid represented by the above formula (1-A) and/or formula (1-B) with a microorganism capable of selectively degrading L-amino acid or with at least one of the treated products of the microorganism.

L7 ANSWER 7 OF 15 EUROPATFULL COPYRIGHT 2003 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 853128 EUROPATFULL EW 199829 FS OS
 TITLE: Method for producing D-tryptophan.
 Verfahren zur Herstellung von D-Tryptophan.
 Procédé pour la production de D-tryptophane.
 INVENTOR(S): Yamamoto, Hiroaki, 1-14-14-103, Sengen, Tsukuba-shi, Ibaraki 305, JP;
 Mitsuhashi, Kazuya, 2-13-12-503, Hanabatake, Tsukuba-shi, Ibaraki 305, JP;
 Matsuyama, Akinobu, 1-14-14-304, Sengen, Tsukuba-shi, Ibaraki 305, JP;
 Tomita, Fusao, 5-7-8, Hokkan 4-jo, Nishi-ku, Sapporo-shi, Hokkaido 063, JP
 PATENT ASSIGNEE(S): DAICEL CHEMICAL INDUSTRIES, LTD., 1, Teppo-cho, Sakai-shi, Osaka 590, JP
 PATENT ASSIGNEE NO: 1547242
 AGENT: VOSSIUS & PARTNER, Siebertstrasse 4, 81675 Muenchen, DE
 AGENT NUMBER: 100314
 OTHER SOURCE: ESP1998048 EP 0853128 A1 980715
 SOURCE: Wila-EPZ-1998-H29-T1a
 DOCUMENT TYPE: Patent
 LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
 DESIGNATED STATES: R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
 PATENT INFO.PUB.TYPE: EPA1 EUROPÄISCHE PATENTANMELDUNG
 PATENT INFORMATION:

PATENT NO	KIND DATE
EP 853128	A1 19980715
	19980715
EP 1998-100314	19980109
JP 1997-2228	19970109
JP 1997-136267	19970527
JP 1997-329792	19971201

'OFFENLEGUNGS' DATE: 19980715
 APPLICATION INFO.: EP 1998-100314 19980109
 PRIORITY APPLN. INFO.: JP 1997-2228 19970109
 JP 1997-136267 19970527
 JP 1997-329792 19971201

ABEN . The method for producing D-tryptophan with high optical purity and high yield is provided, which comprises contacting a mixture of D,L-tryptophan with organisms which produce tryptophanase to degrade L-tryptophan selectively, thereby increasing the content of D-tryptophan in D,L-tryptophan.

L7 ANSWER 8 OF 15 EUROPATFULL COPYRIGHT 2003 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 304021 EUROPATFULL EW 198908 FS OS STA B
TITLE: Acylamino acid racemase, Production and use thereof.
Acylaminosaeure-Racemase, Herstellung und Verwendung.
Racemase d'un acide amine acyle, preparation et utilisation.
INVENTOR(S): Takahashi, Takeshi, 14-13, Kohmyodai 2-chome, Izumi
Osaka 590-02, JP;
Hatano, Kazunori, 2-40, Seiwadainishi 3-chome, Kawanishi
Hyogo 666-01, JP
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., 27, Doshomachi 2-chome
Higashi-ku, Osaka-shi Osaka, 541, JP
PATENT ASSIGNEE NO: 204703
AGENT: von Kreisler, Alek, Dipl.-Chem. et al, Patentanwaelte
Von Kreisler-Selting-Werner Deichmannhaus am
Hauptbahnhof, D-5000 Koeln 1, DE
AGENT NUMBER: 12434
OTHER SOURCE: ESP1989008 EP 0304021 A2 890222
SOURCE: Wila-EPZ-1989-H08-T1
DOCUMENT TYPE: Patent
LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES: R AT; R BE; R CH; R DE; R ES; R FR; R GB; R GR; R IT; R
LI; R LU; R NL; R SE
PATENT INFO.PUB.TYPE: EPA2 EUROPAEISCHE PATENTANMELDUNG
PATENT INFORMATION:
PATENT NO KIND DATE

EP 304021 A2 19890222
'OFFENLEGUNGS' DATE: 19890222
APPLICATION INFO.: EP 1988-113315 19880817
PRIORITY APPLN. INFO.: JP 1987-208484 19870821

GRANTED PATENT - ERTEILTES PATENT - BREVET DELIVRE

ACCESSION NUMBER: 304021 EUROPATFULL EW 199317 FS PS STA B
TITLE: Acylamino acid racemase, Production and use thereof.
Acylaminosaeure-Racemase, Herstellung und Verwendung.
Racemase d'un acide amine acyle, preparation et utilisation.
INVENTOR(S): Takahashi, Takeshi, 14-13, Kohmyodai 2-chome, Izumi
Osaka 590-02, JP;
Hatano, Kazunori, 2-40, Seiwadainishi 3-chome, Kawanishi
Hyogo 666-01, JP
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., 1-1, Doshomachi
4-chome, Chuo-ku, OSAKA, JP
PATENT ASSIGNEE NO: 204703
AGENT: von Kreisler, Alek, Dipl.-Chem. et al, Patentanwaelte
von Kreisler, Selting, Werner, Deichmannhaus am
Hauptbahnhof, W-5000 Koeln 1, DE
AGENT NUMBER: 12434
OTHER SOURCE: EPB1993021 EP 0304021 B1 930428
SOURCE: Wila-EPS-1993-H17-T1
DOCUMENT TYPE: Patent
LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES: R AT; R BE; R CH; R DE; R ES; R FR; R GB; R GR; R IT; R
LI; R LU; R NL; R SE
PATENT INFO.PUB.TYPE: EPB1 EUROPAEISCHE PATENTSCHRIFT
PATENT INFORMATION:
PATENT NO KIND DATE

EP 304021

B1 19930428

'OFFENLEGUNGS' DATE:

19890222

APPLICATION INFO.: EP 1988-113315

19880817

PRIORITY APPLN. INFO.: JP 1987-208484

19870821

REFERENCE PAT. INFO.: DE 2352579 A

DE 3712539 A

FA 2586702 A

ABEN The present invention relates to acylamino acid racemase, production and use thereof.

The acylamino acid racemase of the present invention racemizes optically active N-acyl-.alpha.-aminocarboxylic acid alone at pH values around the neutral level at a normal temperature under normal pressure in the presence of optically active amino acid; its use in combination with D- or L-aminoacylase enables the production of optically active D- or L-.alpha.-amino acid from DL-acyl-.alpha.-aminocarboxylic acid at a high level of efficiency.

L7 ANSWER 9 OF 15 IFIPAT COPYRIGHT 2003 IFI

AN 2354829 IFIPAT;IFIUDB;IFICDB

TITLE: PROCESS FOR MAKING D-AMINOACYLASE

INVENTOR(S): Lin, Chyuan S, Taipei, TW

Tsai, Ying C, Taipei, TW

Tseng, Ching P, Taipei, TW

Yang, Yunn B, Taipei, TW

PATENT ASSIGNEE(S): National Science Council of Republic of China, Taipei, TW

PRIMARY EXAMINER: Lilling, Herbert J

AGENT: Jacobson, Price, Holman & Stern

	NUMBER	PK	DATE
PATENT INFORMATION:	US 5206162		19930427
APPLICATION INFORMATION:	US 1991-778240		19911017
EXPIRATION DATE:	17 Oct 2011		
FAMILY INFORMATION:	US 5206162		19930427
DOCUMENT TYPE:	UTILITY		

EXPIRED
REINSTATED

FILE SEGMENT: CHEMICAL
GRANTED

OTHER SOURCE: CA 119:93717

MICROFILM REEL NO: 005883 FRAME NO: 0303

NUMBER OF CLAIMS: 1

GRAPHICS INFORMATION: 4 Drawing Sheet(s), 4 Figure(s).

AB A process for making D-aminoacylase includes adding 1% N-acetylDL-amino acid preferably N-acetyl-DL-methionine and N-acetyl-DLleucine in a culturing medium incubated with **bacteria** selected from the strain of *Alcaligenes faecalis* for culturing the **bacteria** and for inductively promoting an enzyme reaction to produce the **D-aminoacylase** which is able to hydrolyze **D-amino acids** and unable to hydrolyze L-amino acids.

L7 ANSWER 10 OF 15 USPATFULL

ACCESSION NUMBER: 1999:72474 USPATFULL

TITLE: Method for producing D-tryptophan

INVENTOR(S): Yamamoto, Hiroaki, Ibaraki, Japan

Mitsuhashi, Kazuya, Ibaraki, Japan

Matsuyama, Akinobu, Ibaraki, Japan

Tomita, Fusao, Hokkaido, Japan

PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5916781		19990629
APPLICATION INFO.:	US 1998-5110		19980109 (9)

<--

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1997-2228	19970109
	JP 1997-136267	19970527
	JP 1997-329792	19971201
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Lilling, Herbert J.	
LEGAL REPRESENTATIVE:	Fish & Richardson P.C.	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)	
LINE COUNT:	651	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The method for producing D-tryptophan with high optical purity and high yield is provided, which comprises contacting a mixture of D,L-tryptophan with organisms which produce tryptophanase to degrade L-tryptophan selectively, thereby increasing the content of D-tryptophan in D,L-tryptophan.

L7 ANSWER 11 OF 15 USPATFULL

ACCESSION NUMBER: 1999:72467 USPATFULL
 TITLE: D-aminoacylase
 INVENTOR(S): Tokuyama, Shinji, Shizuoka, Japan
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Osaka, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5916774		19990629	<--
APPLICATION INFO.:	US 1998-122386		19980724 (9)	

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1997-206288	19970731
	JP 1998-141932	19980522
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Wax, Robert A.	
ASSISTANT EXAMINER:	Srivastava, Devesh	
LEGAL REPRESENTATIVE:	Fish & Richardson P.C.	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	9 Drawing Figure(s); 8 Drawing Page(s)	
LINE COUNT:	819	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides a novel D-aminoacylase and a method for producing said enzyme, and also a method for producing D-amino acids using said aminoacylase. D-aminoacylase of the invention having novel properties can be derived from a microorganisms belonging to genus Amycolatopsis. The use of the enzyme enables industrial production of D-amino acids.

L7 ANSWER 12 OF 15 USPATFULL

ACCESSION NUMBER: 96:118517 USPATFULL
 TITLE: Production process of L-amino acids with bacteria
 INVENTOR(S): Wakamoto, Akiko, Toda, Japan
 Takahashi, Osamu, Toda, Japan
 Furuhashi, Keizo, Toda, Japan
 Miura, Akira, Toda, Japan
 PATENT ASSIGNEE(S): Nippon Mining Company, Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5587303		19961224	<--
APPLICATION INFO.:	US 1994-277775		19940720 (8)	
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1990-632022, filed on 21 Dec 1990, now abandoned which is a continuation-in-part			

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1988-52694	19880308
	JP 1988-52695	19880308
	JP 1988-55781	19880309
	JP 1990-155661	19900614
	JP 1990-191676	19900719
	JP 1990-191677	19900719

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Marx, Irene
LEGAL REPRESENTATIVE: Schmeiser, Olsen & Watts
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
LINE COUNT: 1799

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A production process of optically active amino acids comprising causing a microorganism belonging to Rhodococcus, Mycobacterium, Arthrobacter, Nocardiosis or Bacillus sp. and having nitrile-hydrolyzing activity to act on a nitrile or derivative thereof.

L7 ANSWER 13 OF 15 USPATFULL

ACCESSION NUMBER: 93:20479 USPATFULL
TITLE: Process for making L-aminoacylase
INVENTOR(S): Tsai, Ying C., Taipei, Taiwan, Province of China
Hu, Hsiang L., Taipei, Taiwan, Province of China
Yang, Yunn B., Taipei, Taiwan, Province of China
PATENT ASSIGNEE(S): National Science Council of Republic of China, Taipei, Taiwan, Province of China (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5194383		19930316	<--
APPLICATION INFO.:	US 1991-795504		19911121 (7)	
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	Lilling, Herbert J.			
LEGAL REPRESENTATIVE:	Jacobson, Price, Holman & Stern			
NUMBER OF CLAIMS:	3			
EXEMPLARY CLAIM:	1			
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)			
LINE COUNT:	300			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for making L-aminoacylase includes a cultivation of microorganism selected from a specy of Alcaligenes, especially the Alcaligenes denitrificans DA 181, and a separation of a produced L-aminoacylase from the bacterial cells for obtaining the L-aminoacylase which may be further purified for the production of L-amino acid. The acylase made by such a process may have an increased stability, beneficial for its commercial and medical values.

L7 ANSWER 14 OF 15 USPATFULL

ACCESSION NUMBER: 91:1096 USPATFULL
TITLE: Acylamino acid racemase, production and use thereof
INVENTOR(S): Takahashi, Takeshi, Izumi, Japan
Hatano, Kazunori, Kawanishi, Japan
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Osaka, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4981799		19910101	<--
APPLICATION INFO.:	US 1988-227882		19880803 (7)	

NUMBER	DATE
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PRIORITY INFORMATION: JP 1987-208484 19870821
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rosen, Sam
LEGAL REPRESENTATIVE: Wenderoth, Lind & Ponack
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 869

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to acylamino acid racemase, production and use thereof.

The acylamino acid racemase of the present invention racemizes optically active N-acyl-.alpha.-aminocarboxylic acid alone at pH values around the neutral level at a normal temperature under normal pressure in the presence of optical active amino acid; its use in combination with D- or L-aminoacylase enables the production of optically active D- or L-.alpha.-amino acid from DL-acyl-.alpha.-aminocarboxylic acid at a high level of efficiency.

L7 ANSWER 15 OF 15 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1987-196299 [28] WPIDS
DOC. NO. CPI: C1987-082106
TITLE: New streptomyces tuius - has D-amino-acylase producing power and defects L-amino-acylase producing power, for use in enzyme(s) for D-amino acid prodn..
DERWENT CLASS: B05 D16 E19
PATENT ASSIGNEE(S): (AGEN) AGENCY OF IND SCI & TECHNOLOGY; (DAIL) DAICEL CHEM IND LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 62126969	A	19870609	(198728)*	4	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 62126969	A	JP 1985-265861	19851126

PRIORITY APPLN. INFO: JP 1985-265861 19851126

AB JP 62126969 A UPAB: 19930922

Streptomyces tuius which has **D-aminoacylase** producing power and substantially defects L-aminoacylase producing power, is a new mutant.

USE/ADVANTAGE - **D-aminoacylase** is an enzyme useful in prodn. of **D-amino acid**. **D-amino acid** may be produced in high optical purity may be produced by means of D-aminocylase in enzymatic reaction.

In an example, streptomyces tuius IFO 13418 was cultured in Agar-agar slant culture medium. The grown **bacteria** body was suspended in physiological salt water contg. 0.01% Tween 80. Resultant suspension was filtered with **bacteria**-free gauze to give spore-suspension (contg. 10 power 8 to 10 power 7/ml of spore). NIG was added into the spore suspension (concn. 29 microg/ml), incubated at 30 deg.C for 30-9L mins. The spore was washed with physiological salt water twice, coated over agar-agar flat plate culture medium, cultured at 30 deg.C for 6-12 days. Propagated colony was cultured in liq. culture medium at 30 deg.C for 2-4 days. Obtd. **bacteria** body was collected, washed with 0.1 M phosphoric acid buffer soln., treated with N-acetyl-L-amino acid at 30 deg.C for 24 hrs.

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(FILE 'HOME' ENTERED AT 12:19:53 ON 21 MAR 2003)

FILE 'REGISTRY' ENTERED AT 12:20:14 ON 21 MAR 2003

L1 1 S 65979-42-2/RN

FILE 'HCAPLUS' ENTERED AT 12:20:26 ON 21 MAR 2003

FILE 'REGISTRY' ENTERED AT 12:24:50 ON 21 MAR 2003

SET SMARTSELECT ON

L2 SEL L1 1- CHEM : 4 TERMS

SET SMARTSELECT OFF

FILE 'HCAPLUS' ENTERED AT 12:24:50 ON 21 MAR 2003

L3 73 S L2

L4 10 S L3 (L) (BACTER? OR EUBACTER?)

L5 7 S L4 (L) (D AMINO ACID)

L6 4 S L5 AND PD<20000127

=> d ibib ab 1-4

L6 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:395534 HCAPLUS
DOCUMENT NUMBER: 133:161073
TITLE: Enzymes acting on peptides containing D-amino acid
AUTHOR(S): Asano, Yasuhisa; Lubbehusen, Tina L.
CORPORATE SOURCE: Biotechnology Research Center, Toyama Prefectural
University, Toyama, 939-0398, Japan
SOURCE: Journal of Bioscience and Bioengineering (2000
, 89(4), 295-306
CODEN: JBBIF6; ISSN: 1389-1723
PUBLISHER: Society for Bioscience and Bioengineering, Japan
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 125 refs. Mainly microorganisms but only a few higher
organisms are presently known to express enzymes that hydrolyze peptides
contg. **D-amino acids**. These enzymes can be
involved in proceedings at the **bacterial** cell wall, in either
assembly or modification, and thus cause resistance to glycopeptide
antibiotics, or mediate resistance against .beta.-lactam antibiotics. In
other cases the in vivo function is still unknown. New enzymes screened
from nature, such as D-aminopeptidase, **D-amino**
acid amidase, alk. D-peptidase or **D-aminoacylase**
, offer potential application in the prodn. of **D-amino**
acids, the synthesis of **D-amino acid**
oligomers by promoting the reversed reaction under appropriate conditions,
or in the field of semi-synthetic antibiotics.
REFERENCE COUNT: 125 THERE ARE 125 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L6 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:318070 HCAPLUS
DOCUMENT NUMBER: 120:318070
TITLE: N-acyl-D-amino-acid amidohydrolase
AUTHOR(S): Moriguchi, Mitsuaki
CORPORATE SOURCE: Fac. Eng., Oita Univ., Oita, 870-11, Japan
SOURCE: Kagaku to Seibutsu (1994), 32(4), 217-9
CODEN: KASEAA; ISSN: 0453-073X
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
AB A review with 15 refs. on N-acyl-D-amino acid amidohydrolase of
Pseudomonas, Streptomyces, and Alcaligenes, its induction enhancement by
N-acetyl amino acids, substrate specificity of the enzyme, and homol. of
the N-terminal amino acid sequences among the strains.

L6 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1980:548027 HCAPLUS
DOCUMENT NUMBER: 93:148027
TITLE: Deacetylation of PS-5, a new .beta.-lactam compound.
I. Microbial deacetylation of PS-5
AUTHOR(S): Fukagawa, Yasuo; Kubo, Katsuro; Ishikura, Tomoyuki;
Kouno, Kageaki
CORPORATE SOURCE: Cent. Res. Lab., Sanraku-Ocean Co., Ltd., Fujisawa,
Japan
SOURCE: Journal of Antibiotics (1980), 33(6), 543-9
CODEN: JANTAJ; ISSN: 0021-8820
DOCUMENT TYPE: Journal
LANGUAGE: English
AB PS-5 (I) [67007-79-8] deacetylated to NS-5 (II) [74806-75-0] by L-amino
acid acylase [9012-37-7] from porcine kidney and **D-**
amino acid acylase [65979-42-2]
from Streptomyces olivaceus, but not by L-amino acid acylase from
Aspergillus sp. Using PS-5, N-chloroacetyl-L-phenylalanine, and
N-chloroacetyl-D-valine as substrates, acylase producers were screened
among facultative MeOH-assimilating **bacteria**. Most of the
microbes tested were active and could be classified into 2 groups of
L-acylase producers and L- and D-acylase producers. Pseudomonas Sp. 1158,

which deacetylated the 3 substrates, was chosen for further study. Cells of the **bacterium** entrapped in polyacrylamide gel and its acylase activities immobilized on DEAE-Sephadex were useful for conversion of PS-5 to NS-5.

L6 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1980:512323 HCAPLUS
DOCUMENT NUMBER: 93:112323
TITLE: D-Aminoacylase
PATENT ASSIGNEE(S): Sanraku-Ocean Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55042534	A2	19800325	JP 1978-115323	19780919 <--
JP 60031477	B4	19850722		

PRIORITY APPLN. INFO.: JP 1978-115323 19780919

AB A **D-aminoacylase** (I) [65979-42-2] was produced by culturing a facultatively MeOH-assimilating **bacterium** at 10-40.degree. and at pH 4.0-9.0. I was reactive to N-acyl **D-amino acids** but not to N-acyl glucosamines or N-acyl ethanolamines, optimally reacting at .apprx.80.degree. and at pH 7.4. I was stable at <80.degree. and at pH 6-7 and had a mol. wt. of 100,000, an isoelec. point of 4.95, and an elemental anal. of C 54.33, H 7.19, and N 16.37. I was inhibited by Hg²⁺, Cu²⁺, and p-chloromercuribenzoate. Thus, *Pseudomonas* species 1158 was cultured with shaking at 28.degree. for 4 days on 100 mL medium (pH 7.0) contg. glucose 2, Pharmamedia 0.8, and corn steep liquor 0.5%. The culture cells were suspended in 500 mL of 0.01M phosphate buffer (pH 7.4) and sonicated to yield an ext. The ext. (830 mL) was mixed with 3 g streptomycin H₂SO₄ and centrifuged at 10,000 rpm for 30 min at 0.degree. to yield 800 mL supernatant. I in the supernatant was pptd. with addn. of (NH₄)₂SO₄ and purified by column chromatog. on DEAE-Sephacel, Sephadex G-100, and G-200.

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NiceZyme View of ENZYME: EC 3.5.1.14

Official Name	
Aminoacylase.	
Alternative Name(s)	
Histozyme. Hippuricase. Benzamidase. Dehydropeptidase II. Aminoacylase I. Acylase I.	
Reaction catalysed	
An N-acyl-L-amino acid + H(2)O <=> a fatty acid anion + an L-amino acid	
Comments	
<ul style="list-style-type: none"> • Wide specificity; also hydrolyzes dehydropeptides. • Used in separating D- and L-amino acids. 	
Cross-references	
PROSITE	PDOC00613
BRENDA	3.5.1.14
EMP/PUMA	3.5.1.14
WIT	3.5.1.14
KYOTO UNIVERSITY LIGAND CHEMICAL DATABASE	3.5.1.14
IUBMB Enzyme Nomenclature	3.5.1.14
MEDLINE	Find literature relating to 3.5.1.14
SWISS-PROT	Q03154 , ACY1_HUMAN; P37111 , ACY1_PIG ; P37112 , AMAA_BACST; P37356 , AMAA_BACTR;

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